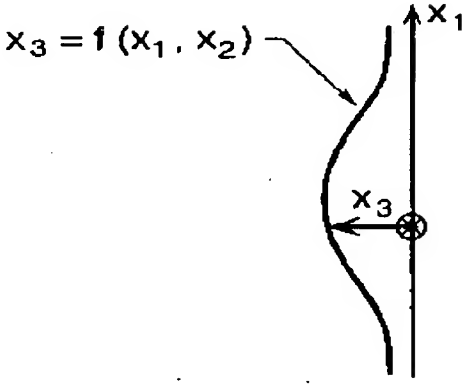
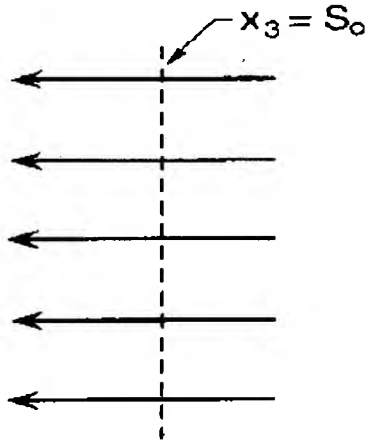
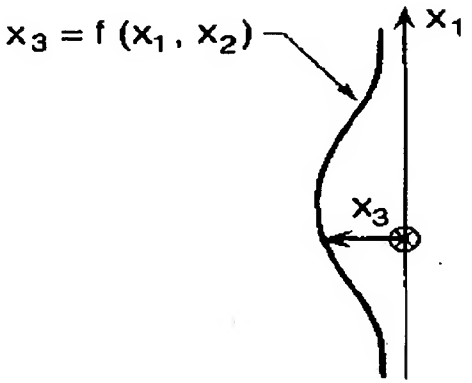


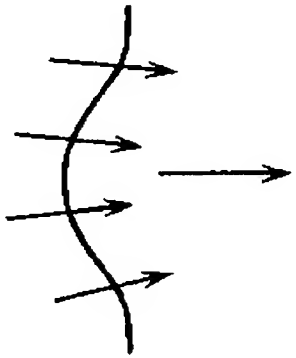
REFERENCE IS SET PERPENDICULAR TO INCOMING RAYS



INCOMING PLANAR WAVE FRONT S_o (not a function of x_1, x_2. S_o is a constant plane)

FIG. 1

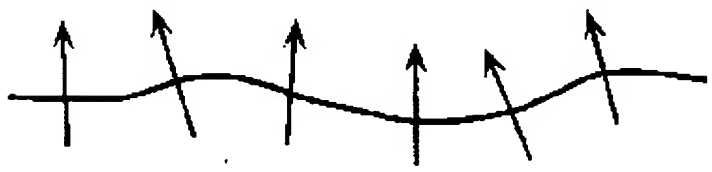




$x_3 = S(x_1, x_2)$ OUTGOING WAVEFRONT DISTORTED BY CURVED WAFER

$S(x_1, x_2) = S_o + \Delta S(x_1, x_2)$

FIG. 2



DISTORTED BY NON UNIFORM THICKNESS h AND n

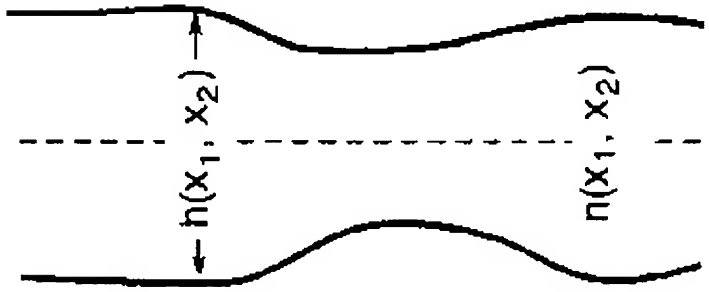
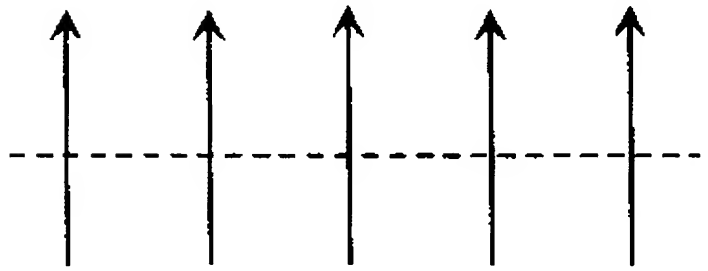


PLATE OF NON-UNIFORM THICKNESS



INCOMING PLANAR WAVE FRONT S_o (not a function of x_1, x_2. S_o is a constant plane)

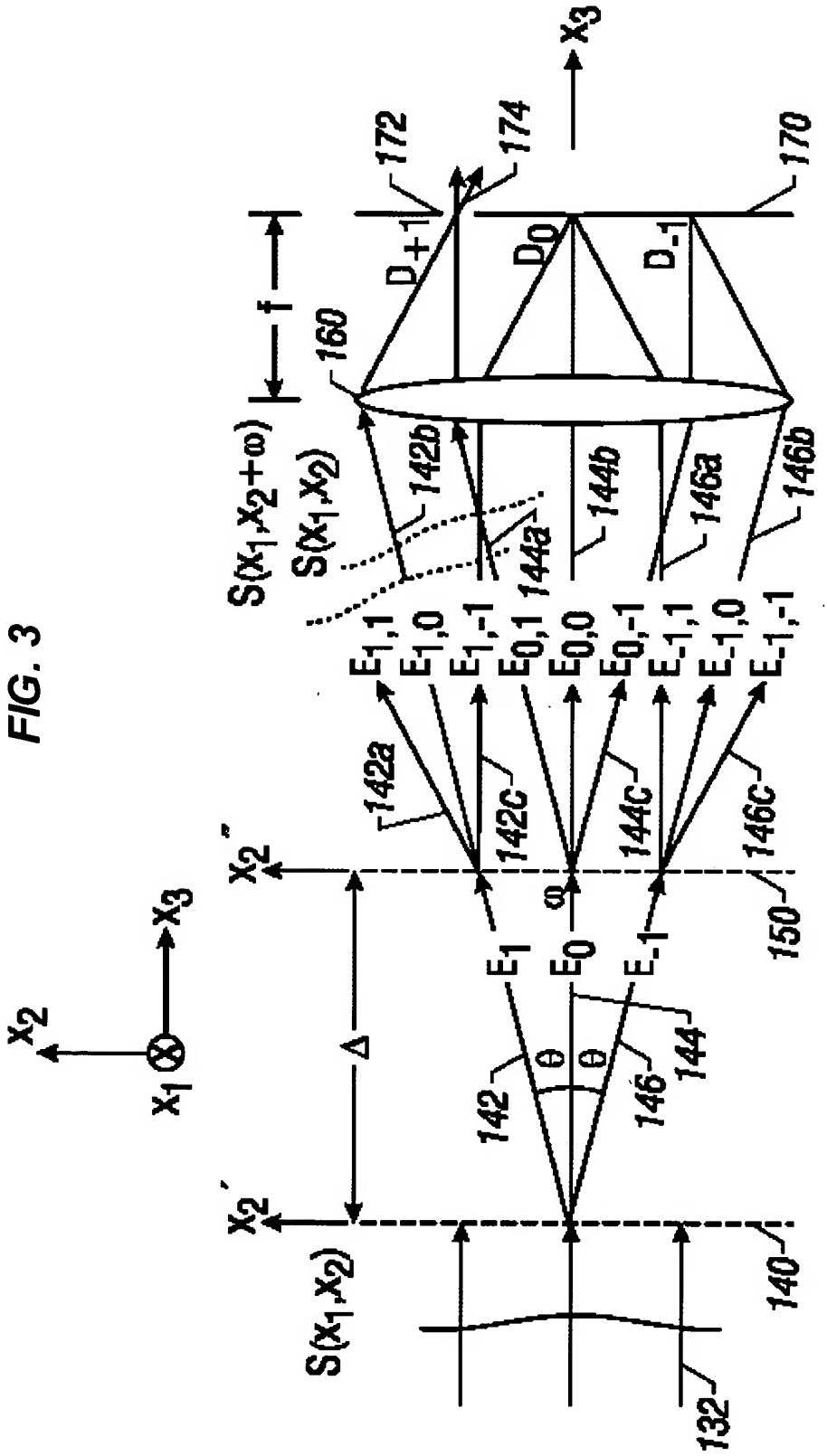

x3
172
174
170
D+1
D0
D-1
f
160
S(x1,x2+ω)
S(x1,x2)
142b
144a
144b
146a
146b
E1,1
E1,0
E1,-1
E0,1
E0,0
E0,-1
E-1,1
E-1,0
E-1,-1
142a
142c
144c
146c
x2''
150
x3
x2
x1
E1
E0
E-1
ω
Δ
θ
θ
142
144
146
x2'
S(x1,x2)
140
132

FIG. 3

Matter No.: 14850-002001
Applicant(s): Ares Rosakis, et al.
OPTICAL CHARACTERIZATION OF SURFACES AND PLATES

FIG. 4

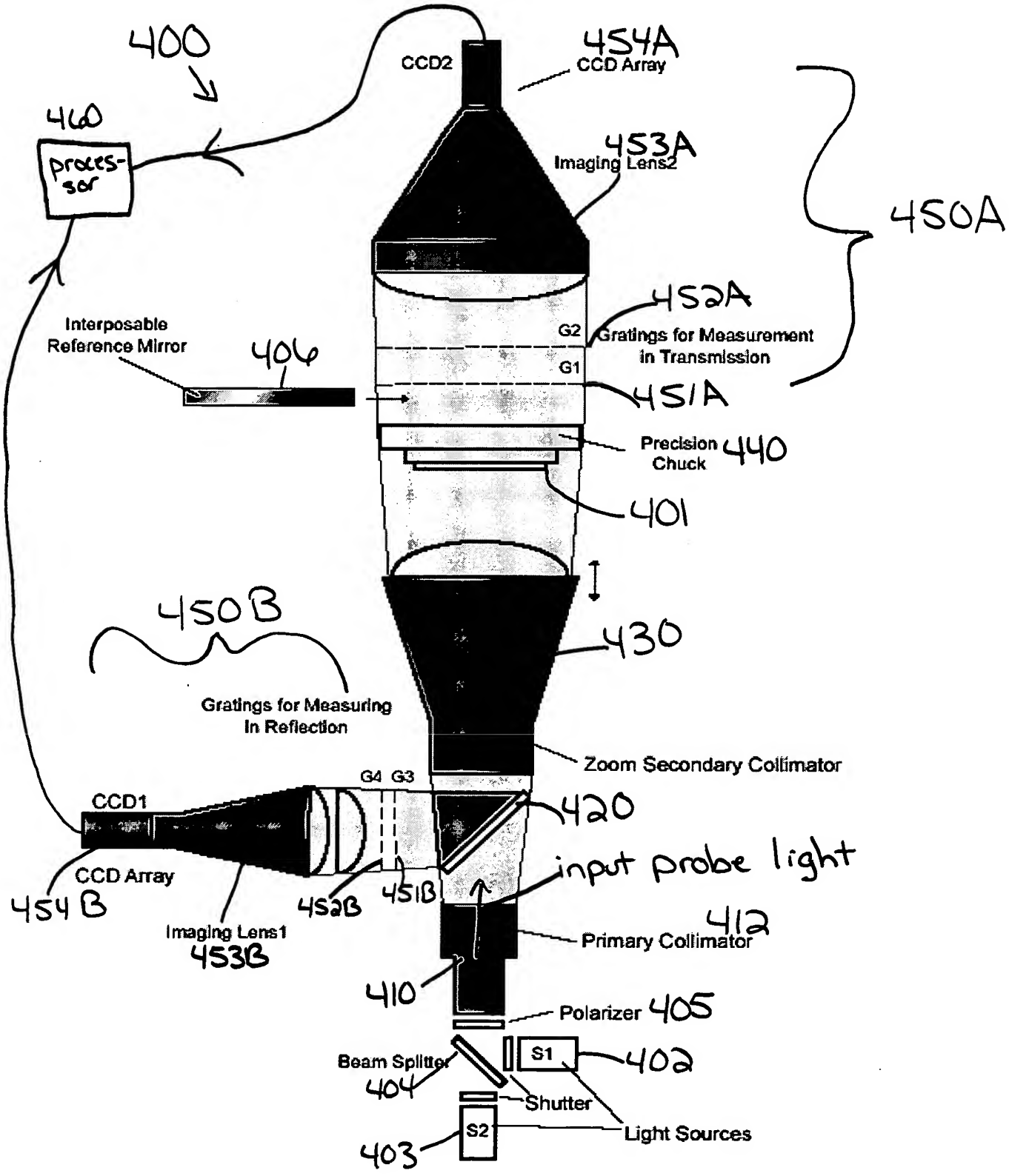
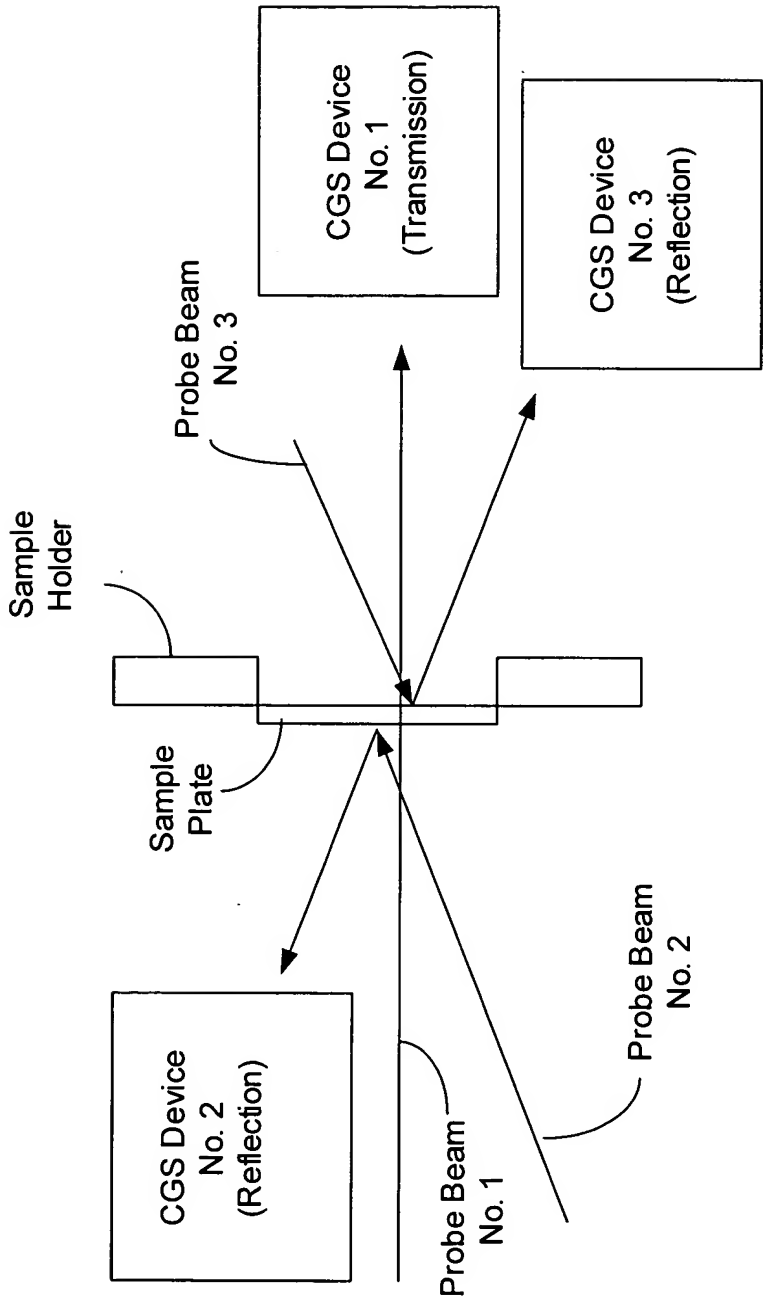


FIG. 5


CGS Device No. 1 (Transmission)
CGS Device No. 3 (Reflection)
Probe Beam No. 3
Sample Holder
Sample Plate
CGS Device No. 2 (Reflection)
Probe Beam No. 1
Probe Beam No. 2